

## NATO Joint Medical Support – Reality and Vision

**Brig Gen Dr.med. E. Rödig**

Luisenstrasse 109  
53721 Siegburg  
GERMANY

### INTRODUCTION

The principal Cold War role of NATO's medical services was to be prepared for the treatment and evacuation of large numbers of battle casualties. Multinational solutions to medical support were not considered necessary or practical. The new NATO force structures and strategic concepts emphasise mobility, interoperability, sustainability, jointness and multinationality; i.e. deployment of multinational forces to any area for any mission. NATO now faces the threat of asymmetric conflict and terrorism, with the civilian society, rather than just the military, at risk of attack. Therefore appropriate Force Health Protection is a core competency. An effective and reliable military medical support system helps maintain the trust of military personnel and the wider public in the military and its political leadership. Furthermore military medicine has broadened beyond the purely clinical to areas such as preventive medicine, medical intelligence, epidemiological surveillance and screenings, and patient regulation.

Unfortunately in many nations, medical shortfalls have become a severe limitation upon their operational capability. Consequently, multinational medical support options become increasingly necessary and require more complex co-ordination at each staff level, especially after the change from long-established Cold War planning to current strategic and operational planning. Health and medical care in operations have increasingly become a responsibility of the Alliance's operational commanders and, at times, may even become the commander's main concern.

**MC 326/2: NATO PRINCIPLES AND POLICIES OF OPERATIONAL MEDICAL SUPPORT** outlines the principles of operational medical support and presents NATO medical policies that are derived from them. This important document seeks to identify the aspects of NATO operational policies unique to medical support. The intention is to guide nations in developing compatible medical support concepts, plans, structures and procedures.

The fundamental principles and policies set out in this document apply to the full spectrum of NATO operations in peace, crisis and conflict, including the Alliance military response to unconventional threats.

This operational medical policy document does not stand alone and is linked to other NATO policy in a number of areas. The key documents concerned are listed in the References section.

In the following the key points of **MC 326/2** are outlined.

*Paper presented at the RTO HFM Symposium on "Combat Casualty Care in Ground Based Tactical Situations: Trauma Technology and Emergency Medical Procedures", held in St. Pete Beach, USA, 16-18 August 2004, and published in RTO-MP-HFM-109.*

<b>Report Documentation Page</b>			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE <b>01 SEP 2004</b>	2. REPORT TYPE <b>N/A</b>	3. DATES COVERED <b>-</b>		
<b>4. TITLE AND SUBTITLE</b> <b>NATO Joint Medical Support Reality and Vision</b>			5a. CONTRACT NUMBER	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
<b>6. AUTHOR(S)</b>			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> <b>Research and Technology Organisation North Atlantic Treaty Organisation BP 25, F-92201 Neuilly-sur-Seine Cedex, France</b>			8. PERFORMING ORGANIZATION REPORT NUMBER	
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>			10. SPONSOR/MONITOR'S ACRONYM(S)	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
<b>12. DISTRIBUTION/AVAILABILITY STATEMENT</b> <b>Approved for public release, distribution unlimited</b>				
<b>13. SUPPLEMENTARY NOTES</b> <b>See also ADM001795, Combat Casualty Care in Ground-Based Tactical Situations: Trauma Technology and Emergency Medical Procedures (Soins aux blessés au combat dans des situations tactiques : technologies des traumas et procédures médicales d'urgence).</b>				
<b>14. ABSTRACT</b>				
<b>15. SUBJECT TERMS</b>				
<b>16. SECURITY CLASSIFICATION OF:</b> a. REPORT <b>unclassified</b>			<b>17. LIMITATION OF ABSTRACT</b> <b>UU</b>	<b>18. NUMBER OF PAGES</b> <b>8</b>
b. ABSTRACT <b>unclassified</b>			c. THIS PAGE <b>unclassified</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>

## PRINCIPLES

### A. HEALTH AS AN ASPECT OF MILITARY OPERATIONS

Health is a key force multiplier of fighting power. In an operational context, health is the ability to carry out duties unimpeded by physical, psychological or social problems.

At all times, nations retain their legal duty of care as an employer of their military personnel. However, upon transfer of authority, the NATO commander shares that responsibility. Increasingly, due to national shortfalls, medical support, and particularly secondary health care, is delivered by a multinational solution, therefore becoming more the responsibility of the NATO commander. The medical services will advise on health matters and nations deliver the medical care required, but only the commander can balance the health and medical risks involved in his plan and decide if they are acceptable.

### B. HEALTHCARE STANDARDS

Medical Ethics and Legal Constraints. Whilst all military personnel are bound by military laws and regulations, medical personnel also have additional individual responsibilities to the ethical and national legal requirements of their own clinical profession. The Geneva Conventions, in granting special rights to medical personnel, is one example.

Standard of Medical Care. Military medicine is highly specialised due to the environment and conditions it is frequently practised in and the procedures will not always be the same as practised during peacetime. The four main aspects affecting clinical quality are organisation, training, environment and equipment. The aim of military medical care in operations is to achieve outcomes of treatment equating to best medical practice. The application of this principle must be guided by the principles embodied in the concepts of Clinical Governance and Evidence Based Medicine.

### C. OPERATIONAL PRINCIPLES

Timeliness of Treatment. Time is a fundamental factor in the effectiveness of medical care. It is conducted in the knowledge that immediate clinical care for acute conditions will decisively improve the patient's prognosis on mortality, invalidity and the development of posttraumatic stress conditions. Therefore, military medical assets must be accessible in a timely manner. Speed of medical evacuation to a stable intensive care environment and, where necessary, surgery is essential to the survival of severely injured casualties and their quality of outcome. The guideline for NATO operations is that advanced trauma care should be available within one hour of injury.

Continuity of Care. A casualty's recovery will depend on the continuance of appropriate care throughout the medical chain. Standards of equipment and staff expertise should be maintained and, in most areas, improve the further up the chain a casualty progresses. Patients passing through an operational medical system must be given care that is continuous, appropriate and progressive. In-transit care must be available during evacuation, which is a medical responsibility as part of the treatment continuum.

Medical Influence Upon Operational Planning. Medical support planning is an integral part of the operational planning process from the outset and has to be performed in close co-operation with all other general staff divisions. Commanders and their staff should consider the impact of casualties on the operational plan and

how they are to be cared for. This requires not only for them to be supported by an able medical staff, but also that they have an understanding of the principles that underpin the delivery of medical support.

Principal Components of Deployed Health Care. A deployed medical system comprises: a command and control structure (C4SRI), an integrated system of treatment and evacuation, and medical logistics. The principal components of operational health care, around which the medical system is built, are Medical Force Protection, Emergency Medicine, Primary Care, Secondary Care and Evacuation. The required medical capabilities and their locations will be principally determined by the time-related constraints of medical care, the commander's campaign plan and casualty estimates.

Medical Force Protection (MFP). Historically, forces have suffered considerably more casualties in operations due to Disease and Non-Battle Injuries (DNBI) than to combat. Preventive Medicine and easy access to Primary Health Care are fundamental aspects of maintaining the health of personnel and the sustainability of forces. Disease and non-battle injury (DNBI) will be an ever-present health risk to personnel. A primary responsibility of medical support is the maintenance of health through the prevention of disease.

Readiness of the Medical Support System. Adequate medical support is a fundamental element of any operational package and medical elements need to be as well prepared and as available for deployment as the forces they support.

Multinationality. Medical assets are scarce and of high value. Multinational medical solutions have considerable potential to reduce the burden of their provision upon individual nations. However, the existence of national differences, such as varying clinical protocols, different languages and legal restrictions, can make this complex. Joint multinational training in peace will pay many dividends for NATO operations in the future.

## THE ORGANISATION OF OPERATIONAL MEDICAL SUPPORT

### COMPONENTS OF DEPLOYED HEALTH CARE

## THE CAPABILITIES REQUIRED COMPRISE THE FOLLOWING MAIN FUNCTIONAL AREAS:

- MEDICAL COMMAND AND CONTROL SYSTEM (C4ISR)
- MEDICAL FORCE PROTECTION
- AN INTEGRATED TREATMENT AND EVACUATION SYSTEM
- A MEDICAL LOGISTIC SYSTEM
- SPECIALIST AREAS

### A. MEDICAL COMMAND AND CONTROL (C4ISR)

To operate effectively, medical advisors require direct access to their NATO commanders and other key command staff elements. Medical personnel must be fully integrated into the staff and operational planning processes and appropriately represented on reconnaissance teams. The medical staff must be adequate in size, training and experience to undertake appropriate and timely medical planning. The Medical Director is

responsible for timely medical planning and coordination. A dedicated and structured command and control system is the essential foundation of an efficient medical support structure. This system, supported by a dedicated communications and information management system, must be capable of planning, executing, controlling, supporting and auditing the full range of medical support functions. The medical command system should provide seamless resources to support treatment, evacuation and passage of information from the initial point of injury or sickness to evacuation to definitive treatment and final disposition.

An essential requirement of medical support is the availability of reliable, timely and current **medical intelligence**, from the initial planning stage throughout the operation as well as during and after redeployment. Such intelligence will form the basis of qualified recommendations to the Force Commander as an integral part of the overall force protection concept.

The efficient **management of medical information**, particularly regarding patients, is a vital element of competent medical support planning. It is essential that this information is standardized and distributed rapidly to all authorized personnel with a need for it. Principal areas of medical concern will be:

- a. **Passage of Information.** Medical decision-making is dependent on the efficient, speedy processing of environmental, tactical, and casualty data.
- b. **Patient Tracking and Regulation.** Both Patient Tracking and Regulation require up- to- date and accurate information about individual casualties and the availability of treatment and evacuation assets. The key requirement is the maintenance of an accurate database.
- c. **Clinical Records.** Medical documentation should be interoperable throughout the theatre of operations and in all national contingents. Copies of patient documents must move with the patient throughout the evacuation system to definitive care.
- d. **Tele-consultation.** Tele-consultation can be a useful tool, particularly when the area of operations is remote and medical resources are limited. Planning should take into account that the use of telemedicine systems will be governed and may be restricted by operational electromagnetic security measures.

## B. MEDICAL FORCE PROTECTION

Medical Force Protection (MFP) measures are an essential element of every contingency plan. The plan will continue throughout the deployment and must extend well into the post-deployment period.

A particular aspect of MFP is defence against Weapons of Mass Destruction (WMD). Protection against WMD requires a comprehensive and integrated approach including vaccination, chemoprophylaxis, and personal protection.

## C. INTEGRATED TREATMENT AND EVACUATION

**Roles of Care Capabilities.** Deployable Medical Treatment Facilities (MTFs) are classified according to their treatment capability in a system of roles, progressively numbered from 1 to 4. Most of the care capabilities of each Role are intrinsic to the next higher Role.

- a. **Role 1.** Role 1 medical support provides for routine primary health care, specialized first aid, triage, resuscitation and stabilization.

- b. **Role 2.** Role 2 provides an intermediate capability for the reception and triage of casualties, as well as being able to perform resuscitation and treatment of shock to a higher technical level than Role 1. It will routinely include Damage Control Surgery (DCS) and may include a limited holding facility for the short term holding of casualties until they can be returned to duty or be evacuated. Role 2 may also include Dentistry, Environmental Health and Psychiatry or Psychology.
- c. **Role 3.** Role 3 is designed to provide secondary care within the restrictions of the Theatre Holding Policy. Role 3 medical support is deployed hospitalization and the elements required to support it. This includes a mission-tailored variety of clinical specialities including primary surgery and diagnostic support.
- d. **Role 4.** Role 4 medical support provides the full spectrum of definitive medical care that cannot be deployed to theatre or is too time consuming to be conducted there. It includes the provision of specialist surgical and medical procedures, reconstructive surgery and rehabilitation. It will normally be provided in the country of origin or the home country of another Alliance member. In many member nations Role 4 care is provided for within the national civilian health system.

The movement (EVACUATION) of the seriously ill is a high-risk activity. The task of transferring casualties is further complicated in military operations by factors such as the operational environment, the weather, the length and quality of evacuation routes and the availability of suitable evacuation assets. Medical evacuation is the movement of patients under medical supervision to MTFs as an integral part of the treatment continuum. There are three categories of medical evacuation, which apply to sea, land and air systems. They are forward, tactical (within theatre) and strategic (out-of-theatre) evacuation. The evacuation plan is closely interrelated to both the medical footprint and holding policy. The robustness of the evacuation chain is proportionally related to the quantity and capability of the treatment assets that will be required in theatre. A medical evacuation system requires the following capabilities:

- a. **Availability.** The aim of the medical system should be to evacuate casualties 24 hours a day, in all weather and sea-states, over all terrain and in any operational scenario. Clearly, this will not be possible in all operational scenarios, particularly with special forces or at sea. In such instances contingency plans are required.
- b. **Continuity.** The crew of medical evacuation assets must be trained and equipped to provide continuity of care of the casualty throughout the evacuation.
- c. **Casualty Regulation.** There are two main aspects to casualty regulation: the management of the flow of casualties, particularly at times of high flow, and the direction of individual patients through the system primarily according to their clinical need. The Casualty Regulation System should be able to provide timely and accurate tracking information throughout the chain of evacuation.

Planning and executing an effective medical evacuation system is a medical responsibility. Since national medical evacuation doctrines and capabilities may differ substantially, only properly coordinated procedures can assure the smooth transfer of patients within a multinational medical support structure.

**Aeromedical Evacuation.** Aeromedical Evacuation will join many parts of the medical chain together and will normally provide the crucial link out of theatre for those casualties being set to Role 4. A centrally controlled multinational aeromedical evacuation system, for combined joint NATO operations, offers the ability to optimise the assets and provide for economy of scale by utilising Role Specialist and Lead Nation concepts.

## D. MEDICAL LOGISTICS

The medical logistic system should be well regulated, efficient and cost-effective. Notwithstanding national policies and overall responsibilities, the coordinating responsibility and authority for planning and executing an effective medical logistic system lies with the NATO Commander. The unique characteristics of medical material set it apart from other commodities (Geneva Conventions, national and international regulations, handling requirements, etc.).

Blood products and medical gases are two supply items that require particular consideration when planning medical logistics. The availability of safe blood and blood products is essential and their supply is a complex and sensitive matter.

## E. SPECIALIST AREAS

Dental care is an integral element of operational medical support. Prevention and correction of dental disease will ensure a higher availability of forces to deploy and reduce the number that will subsequently need to be removed from theatre for such problems. Pre-deployment dental care is a national responsibility and must be a priority for forces held at high readiness for NATO deployments. Deployed dental support is important both to help maintain force availability and also to deal with dental trauma.

Psychological casualties may include battle shock and a range of other anxiety and depressive disorders, some of which will be complicated by physical injury. If correctly managed many can be returned to duty quickly. The aim is not to "medicalise" the management of these cases but, where possible, rehabilitate individuals within their own units. Psychiatry teams may generally be based within medical units, for administrative and control reasons, but should be prepared to conduct their clinical business on a peripatetic community basis. Psychiatric briefing is an element of MFP and should be utilized, as appropriate, before, during and after an operation.

## DISCUSSION

The transformation of the world security environment has lead to a dramatic change of NATO's strategic concept. Alliance members need to have a way to rapidly form military coalitions which can be deployed to any area for any mission.

The integration of NATO Response Forces (NRF) in the new military strategy of NATO which is determined by the basic characteristics: of concentration of forces, flexibility, global mobility and rapid augmentation requires an efficient medical service with small medical footprints. It should provide a standard of medical care which is as close as possible to prevailing peacetime standards. In addition to the conduct of national sovereign tasks, it must have the capability for international cooperation in the sense of interoperability. In this context, the military requirement is that the mobility and flexibility of medical support during operations must correspond to the mobility and flexibility of the units to be supported. Thus the evacuation of wounded and sick patients receives a new status as far as quality and quantity are concerned. This altogether requires from the Alliance a huge medical reorganization and/or upgrade programmes which are in various stages of completion. Unfortunately regular forces have found it increasingly difficult to establish an effective medical care providing system and expensive medical equipment has been more difficult to fund from restricted budgets.

In some nations, medical shortfalls have become a severe limitation to their operational capability.

Consequently, multinational support options become increasingly necessary to establish and maintain the high level of medical care and to release the burden for those countries which permanently carried out the medical mission at level 2 and 3 all over the years in ongoing UN and NATO missions. With MC 326/2 NATO has available an excellent document which applies to the full spectrum of NATO operations in peace, crisis and conflict, including the Alliance military responses to unconventional threats to guarantee effective medical support for NATO forces or NATO-led operations. It is of utmost importance that the NATO nations integrate the fundamental medical principles and policies set out in MC 326/2 in their national concepts and it is paramount that the NATO Strategic Commands translate the content of this document into their doctrine. Joint medical support is an operational issue, rather than a logistic one.

Operationally, NATO's recent involvement has shown its ability to react flexibly beyond its borders.

NATO provides as lead organisation since June 2004 the C2 structure and most of the 6500 troops serving with the International Security Assistance Force (ISAF) in Kabul and protects up to five Provincial Reconstruction Teams (PRT). However to date medical support is a critical resource. Among other items this is why a push to "whip capitals into quicker action" is under way by NATO Secretary General Jaap de Hoop Scheffer.

To sum it up, NATO is on its way to accept more responsibility in terms of Joint Medical Support. With MC 326/2 NATO increases the speed and efficiency of the Alliance approach to the way to provide full spectrum healthcare response capability to meet the entire range of joint military operations. This asks for an integrated, global healthcare system able to establish and to maintain high quality preventive, primary, restorative and trauma healthcare to all NATO troops and an effective evacuation system... anytime .....anywhere.

## REFERENCES

- [A] MC326/2(FINAL) April 2004.
- [B] "The Geneva Conventions of 1949", (incorporating the Hague Protocols of 1907).
- [C] "The Additional Protocols to the Geneva Conventions of 1997".
- [D] C-M (1999) 21,29 Apr 99, The Alliance's Strategic Concept.
- [E] C-M (2001) 41, 22 May 01, Report on Special Considerations for Biological Weapons Defence.
- [F] C-M (2001) 44,28 May 01, NATO Policy on Co-operation in Logistics.
- [G] C-M (2000) 54, 24 Jul 00, NATO Policy for Standardisation.
- [H] MC 55/4 (FINAL), 14 Jan 03, NATO Logistic Readiness and Sustainability.
- [I] MC 317/1 (FINAL), 08 Jul 02, The NATO Force Structure.
- [J] MC 319/2 (MILDEC), 17 Nov 03, NATO Principles and Policies for Logistics.

## NATO Joint Medical Support – Reality and Vision

---

- [K] MC 324/1 (MILDEC), 16 May 03, The NATO Military Command Structure.
- [L] MC 327/2 (FINAL), 29 Aug 01, NATO Military Policy for non-Article 5 Operations.
- [M] MC 334/1 (FINAL), 4 Sep 00, NATO Principles and Policies for Host Nation Support.
- [N] MC 336/2 (FINAL), 15 Mar 02, NATO Principles and Policies for Movement and Transportation.
- [O] MC 343/1 (FINAL), 21 May 02, NATO, Military Assistance to International Disaster Relief Operations (IDRO).
- [P] MC 389/1 (MILDEC), 26 Jun 00, MC Policy on NATO's Combined Joint Task Force (CJTF).
- [Q] MC 400/2(FINAL), 23 May 00, MC Guidance for the Military Implementation of Alliance Strategy.
- [R] MC 411/1 (FINAL), 17 Jul 01, NATO Military Policy on Civil-Military Co-operation.
- [S] MC 469 (FINAL) 30 Jun 03, NATO Military Principles and Policies for Environmental Protection.
- [T] MC 472 (FINAL), 06 Dec 02, NATO Military Concept for Defence Against Terrorism.
- [U] MC 477 (FINAL), 18 Jun 03, Military Concept for the NATO Response Force.
- [V] AMedP-13, Nov 00, NATO Glossary of Medical Terms and Definitions.